

REMARKS

Claims 66-67, 69, and 71-83 remain in this case. Claims 84 and 85 have been added. Claims 1-65 were cancelled by previous amendments, and claims 68 and 70 have been cancelled by this amendment. In view of the foregoing amendments and remarks that follow, Applicants respectfully request favorable consideration and timely indication of allowance.

Claims 66 and 68-70 have been rejected under 35 USC § 102(b) as allegedly being anticipated by Malsky (US 4,645,961). Claims 67, 71-75 and 77-80 have been rejected under 35 USC § 103(a) as allegedly being unpatentable over Malsky. Claim 76 has been rejected under 35 USC § 103(a) as allegedly being unpatentable over Malsky in view of Tsubaki (JP 05328678A). Claims 81-83 have been rejected under 35 USC § 103(a) as allegedly being unpatentable over Malsky in view of Kliman (US 5,793,138). These rejections are respectfully traversed.

Applicants disclose a high efficiency coreless armature, which is neither taught nor suggested by the art of record. The coreless armature comprises a pair of concentric sheet metal windings separated by a continuous non-conductive fiber strand wrapped around the inner winding to form an insulation layer. The armature is encapsulated with a material that impregnates both the windings and insulation layer.

Malsky discloses an armature that is fundamentally different from Applicants' approach. Instead of using a pair of concentric sheet metal windings separated by a continuous non-conductor fiber strand wrapped around the inner winding, Malsky discloses a printed circuit winding having metalization patterns etched on both sides of a flexible substrate. The printed circuit winding is encapsulated with an electrical insulating material, but the material does not impregnate the windings or the flexible substrate.

Referring now to the specific claims, Applicants submit that they recite subject matter which is neither disclosed nor suggested by Malsky, or any other combination of references cited by the Patent Office. Consider, for example, claim 66 which recites in part:

a pair of concentric inner and outer sheet metal winding portions separated by a continuous non-conductive fiber strand extending around the circumference of the inner winding portion a plurality of times to form an insulation layer...

(emphasis added). Claim 66 further recites in part:

the inductive coil being encapsulated with a material that impregnates the winding portions and the insulator layer.

(emphasis added).

The Patent Office takes the position that “a continuous non-conductive fiber strand extending around the circumference of the inner winding” reads on the flexible substrate of the Malsky armature.¹ Applicants respectfully disagree. The flexible substrate of Malsky is not a fiber strand that can be wrapped around a winding a number of times like thread on a spool. Rather, it is flat rectangular sheet of material, such as Mylar, that extends a maximum of 360 degrees within the interior of the coil. Accordingly, Malsky cannot anticipate claim 66.

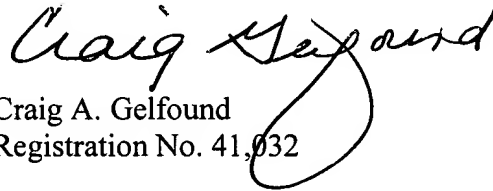
In addition, Malsky cannot anticipate claim 66 because it does not teach or suggest encapsulating the coil with a material that “impregnates the winding portions and the insulation layer.” Malsky encapsulates its armature using an electrical insulating material that is positioned over the interior and exterior portions of the windings, but the material does not impregnate the windings (i.e., fill the voids between the windings). Moreover, because the flexible substrate, or insulation layer, between the windings is a solid, the electrical insulating material cannot impregnate the insulation material under any conditions. Accordingly, Applicants respectfully submit this rejection be withdrawn.

Claims 67, 69, and 71-85 are dependent from claim 66, and therefore, include all the limitations therein. Therefore, these claims are also allowable for the same reasons set forth hereinbefore as well as the additional limitations recited. Applicants believe that it is unnecessary to address these additional limitations at this time due to the allowability of claim 66.

¹ Applicants' attorney appreciates the courtesies extended by the Examiner in an interview on May 19, 2004. During that interview, Applicants' attorney asked the Examiner to identify the structure in Malsky that was alleged to be covered by this limitation. The Examiner responded by saying that Applicants' “fiber strand” read on the flexible substrate of Malsky.

In view of the foregoing amendments and remarks, it is respectfully submitted that this application is now in condition for allowance, and accordingly, reconsideration and allowance is respectfully requested. Should any issues remain which the Examiner believes could be resolved in a telephone interview, the Examiner is requested to telephone Applicants' undersigned attorney.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Craig Gelfound". The signature is fluid and cursive, with a large loop at the end of the last name.

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